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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/036,802	12/21/2001	Toshiaki Fujii	KAW 98-2018-C	5368
23413	7590	10/12/2006	EXAMINER KEENAN, JAMES W	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			ART UNIT 3652	PAPER NUMBER

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,802

Applicant(s)

FUJII ET AL.

Examiner

James Keenan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/1/06 has been entered.

2. Claim 9 is objected to because of the following informalities: in the penultimate line, "lower" should be --low--. Appropriate correction is required.

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 16-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 16, lines 15-16, the recitation that "the cover is unified with the door" is a positive recitation of an element (the door of the movable stage) which is merely inferentially set forth as part of a *wherein* clause. Thus it is unclear whether the scope of the claim is directed to the combination of the container and stage or just the subcombination container. Because elements of the movable stage are positively

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recited in the body of the claim, the scope thereof is considered to be directed to the combination, even though the preamble is directed only to a "container".

It is suggested that the phrase "to be mounted on" be deleted from the preamble line 2.

5. Claims 9, 11-17, and 19-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muka et al (US 5,613,821) in view of Briner et al (US 5,810,537) and Mastroianni (US 6,068,668), all previously of record.

Muka shows a container 32 for receiving dust free articles therein and which is mountable on a loader 60 such that the entire container remains in a low cleanliness room while a cover 42 to be removed from the container faces a high cleanliness room 22, wherein the loader comprises an opening portion 78 disposed in the low cleanliness room in a border location between the high and low cleanliness rooms and a door 80 for opening and closing the opening portion, and further wherein the container comprises an opening port 38 through which the article is transferred to the high cleanliness room, the cover 42 is unified with the door 80 in the low cleanliness room and moves with the door to open and close the opening portion, and a fixing means 50-56 (fig. 5) fixes the cover to the port when the article is enclosed in the container.

The high cleanliness room is not disclosed as having a higher pressure than the low cleanliness room, nor is a gap around to door to allow air to flow from the high pressure, high cleanliness room.

Briner shows loader 10, stage 12 with movable lift ring 16, container 36 with cover 38, and door 26 in opening portion of wall 24 that separates a low cleanliness room from a high cleanliness room, wherein the high cleanliness room has a higher pressure than the low cleanliness room.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified Muka such that the high cleanliness room had a higher pressure than the low cleanliness room, as suggested by Briner, as a means of preventing contamination.

Briner additionally shows the door to have "a slight air gap around its periphery" between it and the opening portion through which air flows out from the high cleanliness room (col. 5, lines 3-19). To have included this additional feature in the apparatus of Muka would have been obvious to further reduce contamination.

Muka also does not show a horizontally movable stage.

Mastroianni shows shuttle 28 for horizontally moving container 38 toward and away from a load port of a wafer processing apparatus. This is disclosed as a desirable alternative to systems without a movable stage.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified Muka by utilizing a driver to move the stage horizontally, as shown by Mastroianni, to enable easier and more precise loading of the container at the load port.

Re claims 11, 26, and 33, note front cover 70 of Muka.

Re claims 12, 17, 25, and 31, see figure 9 of Muka.

Re claims 14 and 22, although Muka does not show the container to include a protrusion with a hole in which a pin is inserted to unify the cover and door, a similar structure including recess 186 into which fingers 194 are inserted is shown in figures 13-15. it would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Muka by utilizing a protrusion with a hole in place of the recess, as this would simply be an alternate equivalent design expediency.

Re claim 19, note seal 48 (fig. 5) of Muka.

Re claim 20, note feet 66 (fig. 3) of Muka.

Re claim 21, absent any structural limitations, any portion of the outside of the container of Muka can be considered a "handle".

Re claims 23 and 28, although Muka does not explicitly teach an air cleaning device, the addition of such a feature is considered an obvious design expediency, in light of the fact that: a) Muka is used in a clean environment, and b) such devices are generally well known in this art, particularly since no structural details are recited.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muka et al in view Briner and Mastroianni, as applied to claim 16 above, and further in view of Bonora et al (US 5,895,191), previously of record.

Muka as modified does not show the angle between the cover and surface to form an acute angle.

Bonora, as previously described in prior Office actions, shows this feature.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the apparatus of Muka by forming the claimed angle as an acute angle, as suggested by Bonora, as this would simply be a well known and art recognized manner of connecting a cover to a container.

7. Applicant's arguments filed 8/1/06 have been fully considered but they are not persuasive.

Applicant continues to assert that the Muka and Mastroianni references fail to show the unifying means in the low cleanliness room, particularly that the "mini-environment" of Muka is inherently clean. However, the claims simply refer to "low cleanliness" and "high cleanliness" rooms, with no definitions or other limitations set forth. The claims do not require the low cleanliness room to be less clean than the high cleanliness room, nor do they require the high cleanliness room to be cleaner than the low cleanliness room. Therefore, nothing in the claims regarding this feature distinguishes over the references. Furthermore, both references show the unifying means exposed, at least some of the time, to the surrounding environment. Note in Muka, for example, that there is no outer door for the opening in wall 70. Only when the carrier is placed on the stage is this opening closed (by the door 42 of the carrier) and only then is the "mini-environment" sealed. However, note that door 80 is a load lock door which separates load lock 76 from the mini-environment (and the surrounding low-cleanliness environment). Thus, even though the mini-environment may be cleaner than

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the surrounding environment, it is still a "low cleanliness room" when compared to the "high cleanliness" load lock. Mastroianni shows a similar system (note esp. fig. 4).

Applicant counters this by arguing that the mini-environment is sealed from the surrounding atmosphere and that the wafers are moved through the clean mini-environment while being transferred to the load lock. While this is not contested, it is not germane to the claimed subject matter, because the claims do not require the loader to be in the low cleanliness room while the wafers are being transferred. It is important to note that the load lock of Muka is also disclosed as being sealed from the surrounding atmosphere, as noted above. The fact remains that the mini-environment is exposed to the surrounding atmosphere, and thus is in the low-cleanliness room, at least part of the time. There is simply nothing in the claims which preclude this interpretation.

8. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

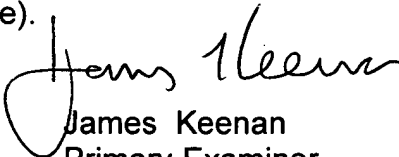
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. The examiner can normally be reached on (schedule varies).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James Keenan
Primary Examiner
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10/4/06